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## Chapter 1      Warning and Security












Read this entire guide before using your oxygen concentrator. Important information contained in this guide:

**DANGER:** Important safety information to recognize a hazard that could result in serious injury or death.

**WARNING:** Safety information is very important to prevent a hazard that may cause serious injury.

**ATTENTION:** Information to prevent product damage.

**NOTES:** Information that should be given special attention.

	General warning, caution, risk of danger Please read the instructions carefully before operating the product.
	Type B applied part
	Class II equipment
	Serial number
	Production date
	Manufacturer
	Waste Electrical Equipment After a validity period of 3 years, the machine must be disposed of in accordance with local laws or existing requirements.
	Fragile The contents of the package are fragile and must be handled with care.
	This way up Indicates the correct upright position of the package.
	Keep away from rain Packages should be kept away from rain.
	Electromagnetic radiation

## Chapter 2 Introduction

This instruction manual will introduce you to oxygen concentrators. Make sure that you read and understand this manual before operating the unit. Contact your medical equipment provider if you have any questions.

### WARNING

**For your safety, oxygen concentrators should be used as prescribed by your doctor.**

### DANGER

Oxygen causes rapid combustion. Do not smoke while the oxygen concentrator is operating, or when you are in close proximity to people who are on oxygen therapy. Keep within 5 feet (1.6m) of heat, objects or sources of ignition.

### **Why Your Doctor Needs Supplemental Oxygen**

Today, many people suffer from heart, lung, and other respiratory ailments. Many people can use oxygen therapy. Your body needs a steady supply of oxygen to function properly. Doctor requires supplemental oxygen because you are not getting enough oxygen from the room air alone. Additional oxygen will increase the amount of oxygen in your body.

Supplemental Oxygen is not an addictive substance. Your doctor may require a special flow of oxygen to improve symptoms such as headache, drowsiness, confusion, fatigue, or irritability. If these symptoms persist after you have started a supplemental oxygen program, consult your doctor.

## Chapter 3      Technical Specifications

Model		MOC - A
Power Input		AC 220V, 50 Hz, $\pm 350W$
Oxygen Concentration		93% $\pm 3\%$
Flow Rate		1~5 liters per minute
Noise Level		40 dB(A)
Normal SPO2 Value		90~99%
Alarm/ yellow indicator lights up if concentration		< 80%
Sound alarm and red indicator lights up if		Abnormal machine condition
Dimension		405(L) x 307(W) x 568(H) mm
Weight		16,60 kg
Normal environment	Temperature	18°C - 30°C
	Relative humidity	10% - 85% RH
	Pressure	700hpa - 1060hpa
Storage environment	temperature	-10°C - +55°C
	Relative humidity	$\leq 95\%$
	Pressure	500hpa - 1060hpa

## Chapter 4 Unit Display

Concentrator oxygen is the most reliable, efficient, and readily available source today. The oxygen concentrator is operated electrically. The unit separates oxygen from room air allowing high purity oxygen to be delivered through the oxygen outlet, although the concentrator filters oxygen in the room, it will not affect the normal amount of oxygen in your room.

Take some time to familiarize yourself with the oxygen concentrator before operating. Before using this product, please make sure you have the following items:

- 1 User Manual
- 1 Oxygen concentrator
- 1 Humidifier
- 1 Nebulizer connector
- 1 Oxygen outlet connector



**Figure 1. Display of MOC-A**

1. Power button (O = ON, I = OFF)
2. Circuit breaker: resets the unit after excessive electrical shutdown. container accessories
3. Flowmeter knob
4. Flowmeter
5. Oxygen status: Monitor and show oxygen condition (purity status)
6. Nipple out: Oxygen output socket
7. Power indicator: The green power indicator lights up when the concentrator is operating
8. Service indicator: The red indicator lights up when it is necessary to contact a medical provider.
9. Air filter: prevent dirt, dust, and lint from entering the unit
10. Filter sponge
11. Exhaust



## INSTALLING OXYGEN CONCENTRATOR

1. Position the unit near an electrical outlet in the room where you spend most of the time.

**⚠ DANGER**

**Keep the oxygen concentrator at least 5 feet (1.6m) away from heat, flammable objects or sources of ignition.**

**NOTES:** Do not connect an electrical outlet through a branch outlet. No other equipment branches should be plugged into the socket.

2. Position your unit at least 6 inches (16 cm) from walls, curtains, or other objects that might prevent air flow in and out of your oxygen concentrator. Oxygen concentrators must be located to avoid pollutants or vapors.
3. Replace the bacterial filter at least once a year. You cannot replace the bacterial filter yourself, contact a medical provider for a bacterial filter replacement.

## BEFORE OPERATING THE OXYGEN CONCENTRATOR

1. Before operating the unit, always check and ensure that the air filter (located on the back of the unit) is clean. How to clean this filter is discussed in a different chapter.
2. Attach the proper oxygen accessories to the oxygen outlet.

**Oxygen Tub Connector:**

- a. Attach the oxygen outlet plug to the oxygen outlet.
- b. Attach the oxygen cylinder directly to the connector.



Figure 2. Oxygen tub connector

### Connection of Oxygen Tubing with Humidifier:

If your doctor has prescribed an oxygen humidifier as part of therapy, follow these steps:

- a. Fill the humidifier bottle with distilled water. Don't spill.
- b. Attach and connect the hose from the nipple out to the humidifier bottle cap located on the top of the humidifier bottle tightly. Make sure the hose is strong and doesn't come off easily.
- c. Attach the oxygen cylinder directly to the humidifier bottle.



Figure 3. Oxygen Tubing with Humidifier

3. Remove the cable from the cable tie strap completely and make sure the power button is in the "OFF" position. Insert the plug into the wall socket. The unit is double insulated to prevent electric shock



#### WARNING

Misuse of the power cord and plug can cause burns, fire or other electric shock hazard. Do not use the unit if the power cord is damaged.

## OPERATING THE OXYGEN CONCENTRATOR

### DANGER

Oxygen causes rapid combustion. Do not smoke while operating oxygen concentrators, or when you are in close contact with people who are on oxygen therapy. Keep the oxygen concentrator at least 5 feet (1.6m) away from heat, objects or sources of ignition.

Press the power button to the "On" position. When the unit is turned on, the power indicator light will come on, and the patient warning system is indicated by an indicator light and an alarm sound.

**NOTES:** If the "Call Service" light is on and an alarm sound is heard but the unit does not operate, there is no power to the unit, contact your medical provider if necessary.

The Oxygen Concentrator Device is a device that monitors the oxygen produced by your unit. When the unit is turned "ON", the four indicators (Power, Low Oxygen, Normal Oxygen, and Call Service) on the front panel will light up momentarily. After a few seconds, only the Power and Oxygen indicators will remain on.

The indicator lights on the front panel are defined as follows:

- **Green:** The level of oxygen produced is normal. (LED will display "Normal Oxygen")
- **Yellow:** The level of oxygen produced is low. (LED will show "Low Oxygen")

If the oxygen purity drops below an acceptable level, the green normal oxygen light will turn off and the yellow low oxygen light will turn on. Switch to your oxygen backup system. If there is a problem, contact your medical provider. As an added safety feature if the oxygen purity continues to decrease, an alarm sound will sound. Call your medical provider right away. Do not try other treatments.

**NOTES:** If low frequency and vibration sound are heard, the unit is not operating properly. Contact your Oxygen Concentrator provider if necessary.

Check the flow meter to ensure that the ball indicator in the flow meter is centered on the line next to the specified amount of your flow rate.

**ATTENTION:** It is very important to follow your oxygen prescription. Do not increase or decrease oxygen flow - consult your doctor.

**NOTES:** Your medical provider may have adjusted the flow meter so that it cannot be adjusted.

**NOTES:** If the flow meter knob is turned clockwise, the flow decreases (and will eventually shut off the oxygen flow). If the knob is turned counterclockwise, the flow increases.

### **OXYGEN RESERVE SYSTEM**

As a precaution, your medical provider can provide an oxygen backup system. If your unit loses power or fails to operate properly, a "Patient Alert System" will sound to switch to your oxygen backup system (if provided) and contact your medical provider.

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## Chapter 5      Troubleshooting

Symptom	Possibility	Solution
A. The unit is not operating. Power indicator off. There is an alarm sound and the “Call Service” alarm flashes red.	1. The power cord is not inserted properly	Re-check the electrical connections at the sockets and sockets.
	2. There is no power at the socket.	Check your circuit breaker and reset it if necessary. Use a different wall outlet if the situation occurs again.
	3. The circuit breaker on the oxygen concentrator is activated (menu option on the unit).	Press the circuit breaker switch (if equipped) located under the power button. Use a different wall outlet if the situation occurs again.
B. The unit is operating. The power indicator lights up when the power switch is “On”. Power light is on. There is an alarm sound and the “Call Service” alarm flashes red.	1. Air filter is closed.	Check the air filter. If the filter is dirty, wash it then reinstall it.
	2. Exhaust is closed.	Check the exhaust area, making sure there is nothing restricting the exhaust unit.
	3. The cannula, catheter, mask or oxygen tube are closed or defective.	Remove the cannula, catheter, or mask. If the flow is clogged, clean or replace if necessary. Remove the oxygen cylinder at the oxygen outlet. If the flow is blocked, check the oxygen cylinder for obstructions or kinks. Replace if necessary.

## Chapter 5      Accessories

The following accessories are approved for use with Oxygen Concentrators:

Object/ no. part	Producer/ Brand Trade	Type/ model	Data technical	Compliance <sup>1</sup>
Humidifier Tube (200ml capacity)	Salter LABS	REF7100	ABS, PP	CE 0482
Cannula (single use)	Hsiner Co., Ltd	3583	PVC	CE 0434
Cannula w/2.1m (7 ft) Oxygen Tubing(disposable)	Hsiner Co., Ltd	3031	PVC	CE 0434
Oxygen Outlet Connector	KEY-HUB	OP01A609A	ABS	---

**NOTES:** The use of certain humidifiers and accessories not specified above may interfere with the performance of this oxygen concentrator.

**NOTES:** If the power light is on and an alarm sound is heard but the unit does not operate, there is no power to the unit, contact your Oxygen Concentrator medical provider.

## Chapter 6 Maintenance

**DO NOT** use any lubricant.



### **WARNING**

**Before performing the cleaning procedure, turn off the unit. Moisture Oxygen (reusable bottles)**

If your doctor has set up a humidifier, clean your humidifier bottle daily. Follow the instructions provided by the manufacturer. If no cleaning instructions are provided, follow these steps:

1. Wash the humidifier in a hot water and dishwasher solution.
2. Soak the humidifier in a small amount of white vinegar in hot water for 30 minutes.
3. Rinse with warm water and refill with distilled water for use. Do not exceed the maximum and minimum water limits.

### **Nebulizer Tube, Cannula, Mask and Bottle**

Clean and replace the nebulizer tube, mask, and bottle as directed by your medical provider.

### **Water Filter and Oxygen Outlet Connector**

Air filters and connectors should be cleaned at least once a week. To clean, follow these steps:

1. Remove the air filter located on the back of the unit. Replace oxygen connector (if used).
2. Wash in a solution of warm water and dishwashing detergent.
3. Rinse with warm tap water and dry thoroughly before installing.



### **WARNING**

**To prevent damage to the product, do not attempt to operate the unit without the air filter or while the filter is still wet.**

## Cabinet Exterior



### WARNING

To avoid electric shock, do not remove the concentrator cabinet. The cabinet should be replaced by a qualified medical technician.

Clean the exterior cabinet concentrator using a damp cloth or sponge, then wipe and wipe dry.


### Periodic maintenance for your unit

1. Clean the air filter at least once a week. Step: Clean the visible Air Filter and Oxygen Outlet Connector.
2. Replace the Inlet Pre-Filter at least once a year and a half. Follow these steps:
  - a. Open it and drag the Inlet Pre-Filter out
  - b. Reinsert into the Pre-Filter Inlet each side
  - c. Insert the Pre-Filter Inlet and the protective cover



## Additional Chapter

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
<p>This device is intended for use in the electromagnetic environment specified below.</p> <p>The user must ensure that the device is used in the following environments.</p>			
Immunity Test	IEC60601 test level	Compliance	Electromagnetic Environment – Guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	<p>Portable and mobile RF communications equipment must be used away from any part of the Patient Monitor including cables with the recommended separation distance calculated from the appropriate frequency equation of the generator.</p> <p><b>Recommended separation distance</b></p> <p><math>d = 3.5 \sqrt{P}</math> 150 kHz to 80 MHz</p> <p><math>d = 3.5 \sqrt{P}</math> 80 MHz to 800 MHz</p> <p><math>d = 2.3 \sqrt{P}</math> 800 MHz to 2.5 GHz</p> <p>Where P is the maximum output of the generator power rating in watts (W) according to the generator manufacturer and d is the recommended separation distance in meters (m). The field strength of the fixed RF generator, determined from the site survey, a must be less than the appropriate level for each frequency range. b</p>
Conducted RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	

			Interference may occur in the vicinity of equipment marked with symbols such as the following: 
NOTE 1 At 80 MHz and 800 MHz, higher frequencies apply			
NOTE 2 This guide may not apply to all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.			
<p><sup>a</sup>Field strengths from fixed generators, such as stations for radiotelephone (cellular or cordless) and mobile radio, amateur radio, AM and FM radio and TV cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF generators, an electromagnetic site survey should be considered. If the field strength at the location where the Patient Monitor is used exceeds the RF compliance level, the Patient Monitor must be monitored to verify normal operation. If abnormal performance is found, additional measurements may be required, such as changing orientation or moving the Patient Monitor.</p> <p><sup>b</sup>The frequency range is above 150 kHz to 80 MHz, the field strength must be less than 1 V/m (80 – 800 MHz) and 3 V/m (800 – 2500 MHz).</p>			

OXYGEN CONCENTRATOR

MOC - A

MANUAL BOOK

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